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STATE OF ALASKA

William A. Egan, Governor

Alaska Department of Fish and Game

Walter Kirkness, Commissioner

Sport Fish Division

Alex H. McRea, Director

ANNUAL REPORT OF PROGRESS, 1961-1962

FEDERAL AID IN FISH RESTORATION PROJECT F-5-R-3

SPORT FISH INVESTIGATIONS OF ALASKA

Richard Haley, Coordinator, Juneau
Robert Baade, Fishery Biologist, Ketchikan
Roger Wadman, Fishery Biologist, Wrangell
Jeremy Sexsmith, Fishery Biologist, Kodiak
Sidney Logan, Fishery Biologist, Seward
Frank Stefanich, Fishery Biologist, Anchorage
Edward J. Cramer, Fishery Biologist, Anchorage
Rupert E. Andrews, Fishery Biologist, Palmer
George Van Wyhe, Fishery Biologist, Glennallen
Henry J. McKirdy, Fishery Biologist, Fairbanks

INTRODUCTION

This report of progress consists of the job completion reports from the State of Alaska Federal Aid in Fish Restoration Project F-5-R-3, "Sport Fish Investigations of Alaska."

The current project is composed of twenty separate studies and was designed to evaluate the various aspects of the State's recreational fishery resources. The information gathered will provide the necessary background data for better management practices and for the development of future studies. During the current segment, continued emphasis was placed on the overall inventory and cataloging of accessible waters, evaluation of catch data, and investigations on various species of fish.

As a result of several problems of immediate concern, several new studies were instigated during the report year. Data accumulated from these studies has helped solve some problems in projects already in progress.

The population of Alaska is increasing rapidly and this is being reflected in the ever increasing number of "No Trespassing" signs put up by individuals in the vicinity of population centers. Fortunately, much of Alaska's fishery waters are still in the public domain. The division's program of acquiring access to fishing waters continued at a much faster pace since being instigated in 1959. Emphasis is being placed on this job and the successful continuation of this activity will forestall many serious recreational use problems currently facing other states.

The enclosed progress reports are fragmentary in many respects and the interpretations contained therein are subject to re-evaluation as the work progresses.

JOB COMPLETION REPORT

RESEARCH PROJECT SEGMENT

State: ALASKAProject No: F-5-R-3Name: Sport Fish Investigations
of AlaskaJob No: 1-DTitle: Creel Census and Population
Sampling of the Sport Fishes
in Southeast AlaskaPeriod Covered: July 1, 1961 to April 15, 1962

Abstract:

A review of previous work on sport fish by the U. S. Fish and Wildlife Service and the Alaska Department of Fish and Game was made. Sampling was done on three types of fishing waters--the easily reached, the boat accessible and the fly-in locations. A voluntary data collection system was used. Indices of evaluation of the voluntary data system were attempted using complete coverage information and direct observation during high intensity periods of the fishery. Field conditions sharply limited the choice of census techniques.

Recommendations:

The objectives of this job have been accomplished. It is recommended that the voluntary census be discontinued.

Existing regulations are adequate to manage the sport fish populations investigated.

Objectives:

To measure the sport fish population trends and fishing success in waters available to the area's anglers.

To evaluate the effect of management procedures currently applied to these sport fishing waters.

To provide recommendations for the management of these waters.

Techniques Used:

The voluntary reporting system set up in 1960 was continued. An effort was made to check these installations between spring and fall. After the end of the fishing activity, in October and November, the census boxes were removed.

Where temporary field enforcement agents (stream guards) were stationed on popular sport fishing locations, they were instructed to collect creel census information. This coverage was used to evaluate the voluntarily recorded data. No attempt was made to upset the ratio by encouraging the anglers to voluntarily report.

Voluntary reporting stations were established at forty locations on representative waters.

Findings:

The 447 voluntary returns reported 3,221 fish for 2,870 hours of fishing. The overall catch per hour was 1.17 fish. The species composition, reported voluntarily, was as follows: Cutthroat trout 72.4%, anadromous salmon 53.0%, kokanee 22.0%, Dolly Varden 11.5%, rainbow trout 9.1%, eastern brook trout 4.4% and steelhead 0.8%.

Only 13 census stations returned useable information. Ten stations were destroyed by vandals or bears. Eleven stations were undamaged but contained no completed census forms.

Table 1 illustrates the census results in comparison with 1960 drop-box returns. The decrease in catch per hour probably results from unfavorable weather during the summer of 1961.

Table 1.

	No. Anglers		No. Fish		Hrs. Fished		Catch per Hr.	
	1960	1961	1960	1961	1960	1961	1960	1961
Turner Lake	19	20	306	69	44	106	2.25	.65
Youngs Lake	15	34	353	160	81	181	2.7	.88
Petersburg L.	3	13	45	119	24	111	1.9	1.07
Kah Sheets	4	16	15	76	7	212	2.14	.36
Castle River	14	18	92	113	42	47	2.19	2.4
Virginia Lake	30	76	180	736	109	564	1.65	1.29
Naha R.	19	57	165	337	115	321	1.43	1.05
Fish Creek	29	45	175	202	128	200.5	1.37	.99
Salmon Cr. Res.	86	31	687	141	425	134	1.65	1.05
Hasselborg Lake	41	34	577	550	370	404.5	1.56	1.36
Wilson Lake	24	44	474	449	245	395	1.93	1.14
Patching Lake	26	5	214	82	259	35	.83	2.28
Total	310	393	3,283	3,034	1,849	2,711	21.1	13.8

Table 2.

Fish populations known to exist in the waters of the selected creel census locations.

<u>Location</u>	<u>Near</u>	<u>Sport Species Present</u>
Lower Dewey Lake	Skagway	eastern brook
Mosquito Lake	Haines	cutthroat, whitefish, salmon
Chilkoot Lake	Haines	Dolly Varden, cutthroat, salmon
Chilkat Lake	Haines	cutthroat, Dolly Varden, salmon, whitefish
Montana Cr. (2 drop boxes)	Juneau	Dolly Varden, salmon, rainbow
Glacier-Moraine Lakes	Juneau	rainbow
Youngs Lake	Juneau	cutthroat, Dolly Varden
Admiralty Cr.	Juneau	cutthroat, Dolly Varden steelhead, salmon (no kings)
Turner Lake	Juneau	cutthroat, Dolly Varden, kokanee
Hasselborg Lake	Juneau	Dolly Varden, cutthroat, kokanee
Salmon Cr. Res.	Juneau	eastern brook
Hart Lake	Sitka	eastern brook

Table 2 cont.

<u>Location</u>	<u>Near</u>	<u>Sport Species Present</u>
Thimbleberry Lake	Sitka	eastern brook
Rezanof Lake	Sitka	rainbow
Baranof Lake	Sitka	cutthroat
Kah Sheets Lake	Petersburg	cutthroat, Dolly Varden
Kah Sheets Creek	Petersburg	cutthroat, Dolly Varden steelhead, salmon
Falls Creek	Petersburg	cutthroat, Dolly Varden salmon
Petersburg Lake	Petersburg	cutthroat, Dolly Varden, salmon
Petersburg Creek	Petersburg	cutthroat, Dolly Varden, steelhead, salmon
Castle River	Petersburg	cutthroat, Dolly Varden, steelhead, salmon
Kunk Creek	Wrangell	cutthroat, Dolly Varden, steelhead, salmon
Virginia Lake	Wrangell	cutthroat, Dolly Varden, salmon
Pats Creek	Wrangell	cutthroat, Dolly Varden, steelhead, salmon
Little Bostwick Lake	Ketchikan	cutthroat, Dolly Varden, steelhead, salmon
Ward Lake	Ketchikan	cutthroat, Dolly Varden, steelhead, salmon
Cannell Lake	Ketchikan	cutthroat, Dolly Varden, eastern brook, kokanee
Fish Creek	Ketchikan	cutthroat, Dolly Varden, rainbow, steelhead, salmon
Checats Lake	Ketchikan	rainbow
Wilson Lake	Ketchikan	cutthroat, Dolly Varden, kokanee
Naha River	Ketchikan	cutthroat, rainbow, Dolly Varden, steelhead, salmon
Heckman Lake	Ketchikan	cutthroat, rainbow, Dolly Varden, steelhead, salmon
Patching Lake	Ketchikan	cutthroat, Dolly Varden

Auke Lake, near Juneau, was actively censused by a clerk during June and July. The catch per hour during this period was only .095 for 41 anglers. Eleven fish were recorded. This poor catch record presumably illustrates the periodic unavailability of game fishes in an anadromous situation.

The Naha River, near Ketchikan, was censused by the drop-box method and by Protection Division stream guards. The stream guards counted 172 anglers during a period when only 31 persons voluntarily completed a drop-box form. Care was taken to prevent disturbance of the voluntary census. This dual census indicates that only 18% of the Naha River fishermen reported voluntarily. These voluntary reports accounted for only 11.5% of the known number of angler days.

Prepared by:

Approved by:

Robert T. Baade
Fishery Biologist

Richard Haley
D-J Coordinator

Alex H. McRea, Director
Sport Fish Division